DOCUMENT RESUME

ED 365 737 TM 021 002

AUTHOR Bainer, Deborah L.; Didham, Cheryl K.
TITLE Teacher Interaction Patterns: Can They Be Measured?
PUB DATE Dec 93
NOTE 26p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Behavior Patterns; Check Lists; Collegiality; Elementary Education; *Elementary School Teachers; *Interaction; Interviews; Journal Writing; *Measurement Techniques; Pilot Projects; *Recordkeeping; *Research Methodology; Self Evaluation (Individuals); Social Support Groups
IDENTIFIERS Logbooks; *Self Report Measures

ABSTRACT

This paper reports the results of a pilot study of the routine daily interactions of elementary school teachers. The study was undertaken to identify a method that can be used to study interaction patterns for a large sample of teachers. Specific questions were whether teachers would consistently record and self-report their daily interactions, and what type of instrument should be used to solicit information. Participants were 16 experienced elementary school teachers from 7 districts (9 schools). A journal, log, checklist, and open-ended interview were developed to measure teacher interaction. Effectiveness of these pilot instruments was evaluated using the criteria of number of incidents recorded, detail and quality of information, and comments and recommendations from the teachers. Data suggest that teachers can independently self-report their interactions with sufficient detail to make an analysis of interaction patterns possible. It is suspected that motivation to report interactions may be a factor in a larger sample of teachers. The interview method required considerable teacher and researcher time in spite of the useful information it yielded. The loose structure of the journal made it less efficient in eliciting the information needed. The log and checklist, however, were usable and effective in collecting information and are suggested for further studies of this sort. One figure and two tables present study data. (Contains 28 references.) (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 365 737

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
DEBORAH L. BAINER
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Teacher Interaction Patterns: Can they be Measured?

Co-authors:

Deborah L. Bainer

Assistant Professor

The Ohio State University, Mansfield

1680 University Drive

Mansfield, OH 44906

(419) 755-4287

(Please address all correspondence regarding this manuscript to Bainer)

Cheryl K. Didham

Assistant Professor

The Ohio State University, Lima

TM021002

BEST COPY AVAILABLE

Teacher Interaction Patterns: Can they be Measured?

Affiliation, or support relationships in the workplace, has been identified as a persistent and significant concern among employees. In a recent Gallup Poll, 1200 workers ranked supportive relationships at work as among the ten strongest motivational factors, higher than money and status (in Schuman, 1987). Among elementary teachers, affiliation is especially important. Little (1982) pointed out that teachers have high expectations of collegiality, and that one of the main ways teachers characterize their buildings is if faculty are "close" and by whether faculty routinely "work" together.

Affiliation with adults in the school setting helps socialize new teachers (Kremer-Hazon & Ben-Peretz, 1986; Lortie, 1975), increases a teacher's sense of efficacy (Newman, Rutter & Smith, 1989; Parkay, Greenwood, Olejnik & Proller, 1988) and professional growth (Rosenholtz, Bassler & Hoover-Dempsey, 1986), and enhances awareness of resources, ideas, and skills (Reich, 1986). Professional women share insights on how to handle career, children, marriage and household with novices (Reich, 1986). Further, middle-aged professionals report increased satisfaction and personal stimulation as a result of interacting with younger professionals, illustrating Erickson's concept of generativity. Because teachers with strong affiliation are more effective, these interactions have also been linked to higher student achievement (Chubb, 1988; Little, 1982; Rosenholtz, 1985) and improved classroom discipline (Cohen & Osterweil, 1986; Little, 1982).

Problems arise, however, when teachers are unable or unwilling to interact. Affiliation problems result in poor professional self image (Cruickshank & Associates, 1980) and low job satisfaction (Friesen, Prokop & Sarros, 1988), and are frequently cited as a major reason for teachers leaving the profession (Alexander, Adams & Martray, 1983; Lortie, 1975).

Formal programs of teacher improvement emphasizing teacher affiliation or

support relationships are a growing phenomenon. These programs almost exclusively utilize mentoring, a formal process in which an older, experienced member of the school organization assumes a paternal, guiding role toward the less experienced new teacher. Increasingly, however, researchers suggest that support relationships in organizations are multidimensional rather than unidimensional and that they include informal as well as formal supportive relationships. That is, mentoring is just one of the types of relationships along a continuum of affiliation behaviors among colleagues. Shapiro, Haseltine, and Rowe (1978) described a continuum of patronage in business occupations from a paternalistic "mentor" relationship to a strong but not powerful "sponsor" relationship, to a "guide" who orients the worker to the system within the organization, to a "peer pal" relationship in which colleagues of equal rank help each other succeed. Kram and Isabella (1985) described a continuum of peer relationships in business. They identified "information peers" who shared information about work and the organizational structure; "collegial peers" with whom a relationship of trust and self-disclosure was evident; and "special peers" with whom even greater self-disclosure and self-expression was possible. In studying university faculty members, Hill, Bahniuk, Dobos and Rouner (1989) identified three types of affiliation: "mentoring"; "collegial social" interactions which were reciprocal and somewhat socially-oriented; and "collegial task" interactions which were task-oriented working relationships.

According to Hill et. al. (1989), understanding how the entire range of support relationships along the continuum operate and with what results is essential to the career development of employees. While formal affiliation relationships in an organization provide the participants with the information they need to understand organizational life, informal communication structures are equally important and vital to the individual's success. Informal relationships help employees develop strategies and improve their power status (Hill et. al., 1989). Before schools create

formalized programs for teacher support, then, it seems that more needs to be learned about collegiality and informal relationships among teachers, how those interactions operate, and with what results.

Although collegiality among teachers seems to have widespread support, informal interaction patterns among teachers have not been extensively researched. Zahorik (1987) pointed out the need to know more about teacher interactions as they occur naturally on a daily basis in schools. Yet the few studies of informal teacher interactions identified in the literature employed methodology which limits the impact of their results, especially when applied to today's school context. Many of the widely cited studies (Bidwell, 1965; Jackson, 1968; Lortie, 1975, with interviews conducted in the 1960s) surveyed teachers two decades ago when the school context was radically different from today. More recent studies involving questionnaires were plagued by low response rates, nonrepresentative samples, or the weaknesses inherent with self-report methodologies. One study (Zahorik, 1987) limited its sample to volunteers. Others asked respondents to "think back" over the past year (Zahorik, 1987) or over their career (Egan, 1986; Fagan & Walters, 1982) and to recall and report past interactions. Further, the widely cited study by Little (1982) focused exclusively on interactions with professional content, although Bishop (1977) suggested that social conversations predominate teacher talk. Observational research into teacher interactions has also provided useful information (Glidewell, Tucker, Todt, & Cox, 1983), yet larger sample sizes and more usable methodology are essential to studying teacher interactions empirically on a broader scale.

It seems, then, that if teacher interactions are to be understood as one indicator of affiliation among teachers, much more information is needed. Two issues remain to be explored. First, what method can be used to identify interaction patterns on a larger sample of teachers? That is, can and will teachers report their interactions independent of a researcher and with enough detail so that the nature of the interaction can be understood? Second, what is the nature of informal teacher

interactions? Can patterns of interaction be identified among teachers that can enlighten and guide efforts to formalize support programs in schools?

This paper reports the results of a pilot study of the routine daily interactions of elementary teachers. The purpose of this study was to identify a method that can be utilized to study interaction patterns for a large sample of teachers. The specific questions investigated were the following. 1) Will elementary teachers consistently record and self-report their daily interactions? 2) What type of instrument is most successful in soliciting detailed information on interactions from elementary teachers? Finally, by identifying and describing significant teacher interactions on an on-going, daily basis, this study sought to collect and assess the worth of data about interaction patterns among today's teachers to guide an expanded study.

What is known about teacher interactions?

The effort to develop a self-report instrument to describe teacher interaction patterns was rooted in what is known about teacher interactions. According to Zahorik (1987), teacher interaction patterns have not been carefully described. Little's 1982 study suggested seven dimensions of teacher interactions that can be used to describe collegiality. Expanding on that listing, the following categories were used to summarize what is known about natural interactions and to identify what needs to be known about informal interactions among teachers (Bainer & Didham, 1990):

1) Frequency of interaction: How often do teachers interact?
2) Duration of interactions: How long do teacher interactions take?
3) Participants: With whom do teachers interact?
4) Content/Focus of interactions: What do teachers discuss during their interactions?
5) Results of interactions: What are the outcomes of teacher interactions?

6) Location of interactions: Where do teachers prefer to interact?

7) Time of interactions: At what time of the school day do teachers interact?

Frequency and Duration. Lortie (1975) reported that only 25% of the teachers in his study had much contact with their peers, and almost half had no contact with peers. Other researchers link school variables to the amount of interaction among teachers in the school setting. Little (1982) described professional interaction among teachers as continuous, even through lunch, in some schools but not in others. Newman, Rutter, and Smith (1989) found that teachers interact with greater frequency in smaller schools, and that the frequency of interactions was not impacted by the percentage of disadvantaged students in the school. Newman et al. (1989) found that the amount of time teachers spent in meetings had a negative impact on teacher interactions. This was attributed to the fact that faculty meetings tended to air complaints and conflicts or involve administrative tasks rather than encourage collaborative efforts, thus increasing alienation among teachers. In a more specific study, teachers in Zahorik's (1987) study reportedly spent an average of 63 minutes each day in conversation with other teachers.

Participants. Seventy-five percent of the teachers in Zahorik's study (1987) identified same grade teachers as participants in their interactions. The only other factors mentioned by more than 10% of the teachers as influencing interactions were the proximity (15%) and availability (13%) of the other party. Egan (1986) and Watts (1984) found that the availability of other teachers was essential to teacher interaction. Galvez-Hjornevik (1983) reported that teachers interacted based on proximity, but also tended to interact more with teachers who taught the same grade and content and held a similar ideology about teaching. Further, Larwood and Blackmore (1978) and Greenglass and Burke (1988) found that people preferred to interact with those of the same gender in the workplace, and that female teachers demonstrated higher levels of social support than did male teachers.

Little (1982) found that a teacher's "right" to participate in collegial work was governed by several variables, specifically their formal position and their reputation as a master teacher. As a result, knowledge and teaching skills tended to establish boundaries on a teacher's interaction within the school. In schools where teachers worked closely in teams and where innovations were numerous, these boundaries were most pronounced. Little found that newly hired teachers struggled to integrate into the faculty in schools such as these where levels of collegiality were high.

Content/Focus. According to Bishop (1977), social conversation rather than classroom-related talk predominated teacher interactions. But Zahorik (1987) found that 65% of the time (or 41 minutes per day), teachers discussed teaching, learning, and education matters. Teachers in Zahorik's study reported receiving help 266 times, or about eight times per week, and giving help 345 times, or ten times each week. Zahorik identified 11 types of substantive help in teacher interactions, and found that 70% of those interactions centered on materials, discipline, activities, and individualization.

Little (1982) contended that the content of what is acceptable and unacceptable in teacher discussions varied by school. Topics that were widely accepted included lending and borrowing materials and asking for advice. Not as widely accepted were discussions of teacher practices, working together to solve student behavior problems, and interpreting the curriculum. Unacceptable in any of the schools studied was visiting or observing in another teacher's classroom.

Location. Zahorik (1987) said that teacher interactions occurred everywhere teachers were, and found no one place with greater importance or frequency of interactions than others. Little (1982) noted that in schools with the strongest norms of collegiality, teachers interacted with a diversity of people in varied locations.

Time. Other than Little's (1982) finding that in some schools teachers interacted throughout the work week, no information regarding patterns of teacher collegiality

with respect to time of day or cycles of interaction was identified in the literature.

Method

This study sought to determine what type of self-report instrument could elicit information on interaction patterns among elementary teachers. Further, it sought to identify and describe interaction patterns in the data which merit further investigation.

Subjects. Participants in this study represented a purposive sample of 16 experienced elementary school teachers. Teachers were selected who had served as cooperating teachers or clinical faculty for a university teacher preparation program within the past two years. It was expected that they would provide critical feedback about the instruments under review for the study and data collection procedures. Fifteen of the teachers were females. The teachers represented seven school districts and nine buildings in urban, suburban, and rural areas in one Midwestern state.

Instruments. The *a priori* decision was made that, in order to adequately describe patterns of teacher affiliation, information regarding the seven aforementioned dimensions of interactions should be collected from teachers. In addition, an assessment of the teachers' satisfaction with the interactions was elicited.

Four instruments were developed for use by teachers in recording their significant interactions on an on-going, daily basis: journal, log, checklist, and open-ended interview. The journal provided a blank, dated page for each day of the study. This instrument was designed to allow for maximum flexibility in the style and degree to which teachers reported information regarding their daily interactions. The log provided dated pages divided into seven columns, each labeled with the category of information about the interaction to be recorded therein. The log was designed to provide minimum structure for the information teachers

provided. The checklist was designed to reduce the amount of time required of teachers to record interactions. A notebook containing a folder for each day of the study was given to each participant. Each daily folder contained cards color coded according to the potential participants in the interaction (e.g., same grade teacher, different assignment teacher, administrator, support staff). For each interaction, teachers selected the appropriate participant card and supplied the remaining information about the interaction by checking the appropriate descriptor in each category (e.g., time of the interaction, duration, location, content or focus, results, satisfaction) or by providing additional information (Figure 1). Finally, an open-ended interview form was constructed with questions from each of the seven interaction categories.

Figure 1

All instruments included an introductory page asking teachers to record all significant interactions with adults at school during each day of the study. The following definition of a significant interaction was included:

> A significant interaction is one that is substantive in nature; that is, more than a casual greeting such as saying "hi" to the secretary or a fellow teacher in the hallway. At times when many people are present, a significant interaction is the interaction which is your primary focus for a brief period of time. Significant interactions are not limited to discussions of teaching and learning, however, and include personal, social, or newsy topics as well as professional interactions.

Each instrument also contained a sample entry modelling the format requested

by that instrument. The sample entry included information in all seven categories and included topics that were professional and personal. In the journal, for example, the following sample entry appeared.

> In the hall, I talked with the other first grade teacher. We talked about 15 minutes during our morning break. We talked about one student who is causing problems on the playground, about the PTA meeting the previous evening, and about the fact that my son just won an award as a newspaper carrier. It was a relief to find out that she had noticed the same behaviors from the student, and to "air our feelings" about some of the PTA recommendations.

In the log, the same incident was broken down and the essential information recorded in columns headed: Time of Interaction (morning break), Length of Interaction (15 minutes), Location (hall), Participant(s) (other first grade teacher), Content or Topic of Interaction (1. a student who was causing problems on the playground; 2. PTA meeting; 3. my son won an award as a news carrier), Results (1. she had noticed same behaviors from the student, not other actions; 2. aired our feelings about the PTA meeting; 3. shared information about my family), Satisfaction (1. somewhat satisfied, would have liked more action; 2. satisfied; 3. very satisfied). In the checklist instrument, the "Different Assignment Teacher" card was completed and served as the sample entry.

Beyond the directions presented in the instrument or read orally by the interviewer, no additional instructions were given to the teachers about reporting their interactions. This enabled the researchers to determine which of the instruments was most effective in obtaining detailed information about interactions from teachers working independent of the researchers.

Procedure. Four teachers were randomly assigned to each of four groups. Each group was randomly assigned an instrument to use and teachers were asked to report all significant interactions with adults in the school setting for five consecutive days. Teachers in the interview group were telephoned daily in the late afternoon and asked questions framed from the seven aforementioned categories. Probe questions were used to determine the relationship of the participant(s) to the teacher when names were given, to clarify the content of conversations and specific outcomes, and to ascertain why the teacher was satisfied or dissatisfied with the interaction. On the final day of the study, all teachers also completed a debriefing questionnaire asking for their satisfaction with using the instrument, the usability of the instrument, and recommendations for conducting a study with a larger sample of teachers.

The effectiveness of the pilot instruments was evaluated using three criteria: the number of interactions recorded (frequency); the detail or quality of information provided by teachers for each interaction with respect to the descriptive categories (e.g., time, location, duration, participants, content, results, satisfaction); and comments and recommendations from the teachers. Interaction data was tabulated, frequencies and measures of central tendency determined, and response categories collapsed to simplify data interpretation and highlight patterns in the data. Contingency tables were constructed to reveal associations among the interaction variables.

Results

Teacher participation and recommendations. All teachers consistently self-reported their interactions for the five days of the study. On the debriefing questionnaire, 12 of the 16 participating teachers (75%) said that it took them less than 20 minutes per day to complete the instrument they piloted. Three teachers recorded their interactions as they happened, eight recorded them periodically

throughout the day, and five reportedly recorded interactions at the end of each day. Of the 16 teachers, 15 (94%) rated the instrument they used as either effective or somewhat effective in eliciting information about interaction patterns.

When asked how long they thought teachers would record interactions using the instrument they used, responses ranged from "not long" to ten days, with nine teachers suggesting a five day maximum data collection period. Teachers said that it would take from 3 to 30 days of data to accurately determine patterns of teacher interactions, with the majority (13 teachers, 81%) saying that five to ten days would provide an accurate picture of teacher interaction patterns. Although the teachers largely evaluated their instruments as effective, eight (50%) suggested that some form of checklist would facilitate recording interactions throughout the day and be more usable than the instrument they used. Others suggested the use of videotapes or audiotapes to investigate teacher interactions.

Effectiveness of pilot instruments. A total of 600 usable interactions were reported by the 16 teachers over the five day period. Table 1 compares the number of interactions recorded by the four teachers utilizing each method. The number of interactions reported by individual teachers for the five day period ranged from 10 to 78 with a mean of 37.5 interactions recorded per teacher. The greatest number of total interactions (= 204, X = 51.0 per teacher) was reported by teachers using the interview method. Three of the four teachers using the interview method reported more than the mean number of interactions (78, 56 & 41), while two teachers recording their interactions in journals reported more than the mean number of interactions (55 & 40). Only one teacher using each the log and checklist methods reported more than the mean number of interactions (65 and 45 respectively). The checklist method, with a range in the number of interactions reported across teachers of only 29, provided the least variation in the number of interactions. With the three other methods, the range of the number of interactions recorded by

teachers was from 45 to 49 across teachers, indicating that extremes had an impact on the totals and mean scores.

Table 1

The detail and quality of information provided by teachers about the interactions is shown in Table 2. The table compares the number and percentage of the total number of interactions that contained information necessary to adequately describe teacher interactions. Across the six categories listed, the interactions reported using the interview method provided 99.7% of the descriptive information needed to fully understand the interaction. In contrast, interactions recorded in journal form provided only 56.8% of the information needed to adequately describe teacher interaction patterns. In addition to the interview method, the log and checklist also provided high levels of detailed information (95.5% and 95.2% respectively).

Table 2

Descriptive data on teacher interaction patterns. The 600 interactions recorded by teachers ranged in duration from less than one minute to 120 minutes in length. Ninety percent (90%) of the interactions were less than 15 minutes long, with a mean of 4.8 minutes, a median of 4 minutes, and a mode of 5 minutes. Seventy-five percent (75%) of those interactions were five minutes or shorter in length.

Ninety-seven percent (97%) of the interactions reported contained enough detail to categorize the content of the interaction. Professional interactions were defined as those that involved discussions of teaching, learning, and student-related and classroom matters. Social interactions involved informal discussion of activities, social institutions, or amusement. Social conversations often served to encourage

others or build relations among the participants. Because the topics were general knowledge, these conversations were low risk in nature. Personal interactions, in contrast, were private, focusing on intimate affairs or personal and family matters. These interactions involved a moderate to high level of risk and were not common knowledge. Applying these categories to the data, 68% of the recorded interactions were professional in nature, 18% were social, and 13% were personal. Considering the professional exchanges more specifically, 71% of those interactions were with individual or groups of teachers, 13% with administrators, and 16% with support staff, parents, or community members.

Eighty-six percent (86%) of the interactions reported provided information regarding the location of the interaction. A total of 16 different locations were mentioned by the teachers. Most interactions took place in the teachers' classrooms (25%) or in the hallway (24%). Other frequently cited locations were the office and teachers' lounge (each 12%) and another teacher's classroom (9%).

Eighty-eight percent (88%) of the total teacher interactions provided information regarding the time of the interaction. Although most of the teacher interactions were reported on Monday (24%), 21% of the interactions occurred on Friday, 19% on Wednesday and Thursday, and 17% on Tuesday. During the day, most of the recorded interactions (42%) took place before school or after school. The number of interactions declined throughout the day. Teachers reported 28% of their interactions before school, 25% during the morning, 16% at lunch, 18% in the afternoon, and 14% after school. It should be noted, however, that although the percent of interactions during lunch seems low, those interactions were longer than at other times of the day.

Teachers who expressed their satisfaction with their recorded interactions (69%) reported being "very satisfied" or "somewhat satisfied" with 93% of the interactions. Only seven percent of the interactions left the teachers dissatisfied.

Discussion and Implications

The data suggest that teachers can independently self-report their interactions with sufficient detail to make an analysis of interaction patterns possible. It is suspected, however, that the motivation to report interactions may be an issue with a larger, random sample of teachers. Although teachers in this study verified that the data accurately reflect their interactions, it is unclear from the distribution of professional, social, and personal interactions whether teachers record all interactions or disproportionately document professional interactions. These findings, however, do support Zahorik's (1987) finding that 65% of teacher interactions related professional content rather than Bishop's (1977) observation that social conversation dominated teacher interactions.

Teacher comments indicate that the exercise of recording their interactions may actually be helpful to the teachers. One teacher, for example, shared that, as a result of recording her daily interactions, she began to think about who she interacts with and why and to reexamine her motivation and use of time. Reportedly, the experience helped her better understand herself and her roles with other teachers.

The data also indicate that some self-report instruments are indeed more effective than others in eliciting information regarding teacher interaction patterns. Although the interview method provides detailed information that is most useful in understanding interaction patterns, it required considerable teacher and researcher time. Because of the detailed information they provide, the log and checklist formats are potentially useful, especially with large samples of teachers working independently. The loose structure of the journal render it ineffective in eliciting the level of information needed to meaningfully describe teacher interactions. Further, recommendations from teachers suggest that five days is a reasonable and realistic period of time for collecting data on interaction patterns from teachers using these instruments.

A closer look at the data suggests modifications in the methodology and instruments that would make a study of teacher interactions more effective. Teachers suggested that a checklist would assist them in recording the key elements of their interactions throughout the day, enabling them to accurately recall and report the interactions at the end of the day. It is essential, however, that any checklist be compact and specific, unlike the somewhat cumbersome checklist and notebook used in this pilot study.

Whatever the instrument used, this study showed that teachers had difficulty reporting data in two categories: their satisfaction with the interactions and the results of their interactions. Regarding teacher satisfaction, it was unclear to teachers whether "level of satisfaction" asked for their satisfaction with the process of interacting, with the content of the interaction, or with the results of the interaction. Further, on all three of the written instruments the "results" category failed to elicit useful information. Teachers reportedly could not identify a specific, singular result for most interactions except when deeply probed during interview. Also, the result categories suggested on the checklist instrument (e.g., "decision reached", "problem solved", "information shared", "help provided", "nothing specific decided") were not mutually exclusive and were too simplistic to capture the complex nature of many interactions. Studies by Little (1982) and Zahorik (1987) provided detailed inventories of characteristic teacher interactions which, if included in an instrument, hold promise for classifying the results of teacher interactions. The lists, however, are too long for a teacher survey. Further, the categories are limited to professional dialogue. These lists may provide a basis, though, for developing similarly descriptive categories that will enable teachers to clarify the results of their interactions in a larger, more expanded study.

It is also clear that, in order to fully understand interaction patterns among teachers, information solicited in some categories must be expanded. For example, it is essential not only to understand the primary relationship of the participants in an

interaction (e.g., same grade teacher, principal, etc.), but also the subgroups and informal networks within the school which establish the norms of who interacts with whom and what content is appropriate in that discourse. Whether this information can be gleaned from self-report instruments is open to question.

More important, the content of teacher interactions must explore not only the topic, but also the motivation for the conversation. In calling for more research on teacher collegiality, Little (1990) suggested that it is essential to understand the meaning and value which teachers ascribe to various interactions. In this study, for example, a second grade teacher asked a first grade teacher if her afternoon activity, baking apple pancakes, was successful. On the surface, this seems to be a curriculum-related interaction, but upon reflection the teacher realized that her motivation for the exchange was to improve somewhat strained relationships between the two teachers. She was not really concerned about the baking activity, but with the potential benefit of engaging in a positive interaction.

Further, as Little (1990) pointed out, the results of an interaction must be explored from the perspective of teacher actions. What are the consequences of various types of collegial exchanges? Do teacher interactions reinforce a teacher's tendencies toward individualism or encourage team work and sharing? Do the interactions emphasize careful examination of teaching practices or focus on reassuring norms of teacher behavior? Over time, how are teacher behaviors and student learning impacted by teacher relationships? These questions beg exploration in studies of teacher affiliation.

Finally, the data suggest that analysis must be undertaken in the light of demographic data about teachers and the school context in order to provide meaningful information on affiliation patterns. Analysis should include variables such as the career profile of the teacher, personal characteristics of the teacher, and school context variables such as location, size, and structure. It is essential to understand the conditions that encourage and inhibit teacher affiliation.

Teacher interaction patterns can be measured through a thoughtful research effort. If teacher interaction patterns are to be meaningfully interpreted and used to inform educators, however, the research efforts must go beyond descriptive studies of teacher interaction patterns to investigate the motivations and perspectives which teachers carry into those interactions. This study suggests and evaluates four approaches that could contribute to investigations into the nature of teacher collegial relationships.

References

Alexander, L., Adams, R.D., & Martray, C. R. 1983. Personal and professional stressors associated with the teacher burnout phenomenon. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Bainer, D. L. & Didham, C. K. 1990. Teacher affiliation: A review of the literature. Paper presented at the annual meeting of the MidWest Educational Research Association, Chicago.

Bishop, J. 1977. Organizational influences on the work orientations of elementary teachers. The Personnel and Guidance Journal, 61 (6): 329-332.

Chubb, J. E. 1988. Why the current wave of school reform will fail. The Public Interest, 86: 28-49.

Cohen, E. & Osterweil, Z. 1986. An "issue-focused" model for mental health consultation with groups of teachers. Journal of School Psychology, 24 (3): 243-256.

Cruickshank, D. R. & Associates. 1980. Teaching is tough. Englewood Cliffs, NJ: Prentice-Hall.

Egan, J. 1986. Induction the natural way: Informal mentoring. Paper presented at the annual conference of National Council of States on Inservice Education, Nashville, TN. (ERIC Document Reproduction Service No. ED 275 656).

Fagan, M. & Walter, G. 1982. Mentoring among teachers. Journal of Educational Research, 76 (2): 113-118.

Friesen, D., Prokop, C. M., & Sarros, J. C. 1988. Why teachers burn out. Educational Research Quarterly, 12 (3): 9-19.

Galvez-Hjorneck, C. 1986. Mentoring among teachers: A review of the literature. Journal of Teacher Education, 37(1): 6-11.

Glidewell, J. C. , Tucker, S., Todt, M., & Cox, S. 1983. Professional support systems: The teaching profession. In A. Nadler, J. Fisher, & B. DePaulo (Eds.), New directions in helping (Vol. 3, pp. 189-212). New York: Academic Press.

Greenglass, E. R. & Burke, R. J. 1988. Work and family precursors of burnout in teachers: Sex differences. Sex Roles, 18(3-4): 215-229.

Hill, S.E.K., Bahniuk, M. H., Dobos, J., & Rouner, D. 1989. Mentoring and other communication support in the academic setting. Group and Organizational Studies, 14(3): 355-368.

Kram, K.E. & Isabella, L. A. 1985. Mentoring alternatives: The role of peer relationships in peer development. Academy of Management Journal, 28(1): 110-132.

Kremer-Hazon, L. & Ben-Peretz, M. 1986. Becoming a teacher: The transition from teacher's college to classroom life. International Review of Education,32 (4): 413-422.

Larwood, L. & Blackmore, J. 1978. Sex discrimination in manager selection: Testing predictions of the vertical dyad linkage model. Sex Roles,4: 359-367.

Little, J. W. 1982. Norms of collegiality and experimentation: Workplace conditions of school success. American Educational Research Journal, 19 (3): 325-340.

Little, J.W. 1990. The persistence of privacy: Autonomy and initiative in teachers' professional relations. Teachers College Record, 91 (4): 509-536.

Lortie, D. C. 1975. Schoolteacher: A sociological study. Chicago: University of Chicago.

Newman, M., Rutter, R. A., & Smith, M. S. 1989. Organizational factors that affect school sense of efficacy, community, and expectations. Sociology of Education, 62 (4): 221-238.

Parkay, F. W., Greenwood, G., Olejnik, S., & Proller, N. 1988. A study of relationships among teacher efficacy, locus of control, and stress. Journal of Research and Development in Education, 21 (4): 13-22.

Reich, M. H. 1986. The mentor connection. Personnel, 62 (2): 50-56.

Rosenholtz, S. J. 1985. Effective schools: Interpreting the evidence. American Journal of Education, 94:352-387.

Rosenholtz, S. J., Bassler, D., & Hoover-Dempsey, K. 1986. Organizational conditions of teacher learning. Teaching & Teacher Education,2(2): 91-104.

Schuman, G. 1987. New motivational strategies to pursue. Management Solutions, 32 (1): 32-34.

Shapiro, E., Haseltine, F., & Rowe, M. 1978. Moving up: Role models, mentors, and the patron system. Sloan Management Review,19:51-58.

Watts, H. 1984. The rewards of teaching. Journal of Staff Development, 5 (2): 78-88.

Zahorik, J. A. 1987. Teachers' collegial interactions: An exploratory study. The Elementary School Journal, 87(4): 385-395.

Figure 1

Sample Checklist Page for Interaction with Different Assignment Teacher

---

Teacher -- Different Assignment

Teaching Responsibility:

O 1st Grade O 2nd Grade O 3rd Grade O 4th Grade
O 5th Grade O 6th Grade O Art O Music O PE
O Other_____

Place of Interaction:

O My classroom O Hallway O Lounge
O Other_____

Time of Interaction:

O Before school O Early morning O Late morning
O Early afternoon O Late afternoon O After school
O Lunchtime O Prep time O Other_____

Duration of Interaction:

O Less than 5 minutes O 5 - 15 minutes
O 15 - 30 minutes O Other_____

Topic/Content of Interaction:

O Professional O Personal O Social O Other

Please elaborate on the content:

Outcome/Results of Interaction:

O Decision reached O Problem solved
O Information shared O Nothing specific decided
O Help provided O Other_____

Please elaborate on the outcome:

Your Satisfaction with Interaction:

O Very satisfied O Somewhat satisfied O Dissatisfied

Table 1

Number of Interactions by Instrument and Teacher

Instrument	Teacher 1	2	3	4	Range	Mean	Total
Interview	78	56	41	29	29-78 (49)	51.0	204
Journal	55	40	31	10	10-55 (45)	34.0	136
Log	65	27	23	17	17-65 (48)	33.0	132
Checklist	45	34	33	16	16-45 (29)	32.0	128
					Total		600
					Mean	37.5	150

Table 2

Amount of Detailed Information Provided by Instrument

Category of Information	Interview (204)		Log (132)		Checklist (128)		Journal (136)	
	N	%	N	%	N	%	N	%
Participants	204	100	132	100	128	100	136	100
Time	204	100	132	100	127	99	66	48
Duration	204	100	132	100	126	98	69	51
Location	204	100	132	100	122	95	58	43
Content	201	98	125	95	122	95	135	99
Satisfaction	204	100	103	78	107	84	0	0
Mean		99.7		95.5		95.2		56.8